

# KC9OAS News

ARRL Special Service Club  
<http://www.evanstonhams.org/>

Evanston Amateur Radio Community  
@EvanstonHams

December 2011  
Evanston, Illinois USA

## Next Meeting

December 30, 2011  
7:00 PM

Program:

Holiday Gathering

Firehouse Grill  
750 Chicago Avenue  
Evanston, IL 60201

## Happy Holidays!

We're in the middle of the Holiday season, and want to add yet another thing to your calendar. Please join us on December 30, 2011 for a Holiday celebration. We'll toast the new year, have a meal, and enjoy each others' company at the Firehouse Grill (750 Chicago Avenue, Evanston, Illinois).

To ensure that the restaurant can accommodate everyone we ask that you RSVP by going to <http://evanstonhams.eventbrite.com> by **11:00 AM on December 28**. Registration is free, however the event is dutch treat, so orders will be off the regular menu and each attendee/couple will pay their own bill. Come join the fun!



## Officers

President  
Scott Irwin (W8UFO)

Technical Director  
Marilyn Gardner (W9LUO)

Secretary/Treasurer  
Chuck Bartling (W4TVW)

## Weekly Nets

Metro Amateur Radio Club  
Sundays at 9:00 PM  
147.315 MHz (PL 107.2)

S.A.T.E.R.N  
Tuesdays at 8:00 PM  
146.76 (PL 107.2)

North Shore Radio Club  
Thursdays at 8:00 PM  
442.725 MHz (PL 114.8)

ARES  
4<sup>th</sup> Thursdays at 9:00 PM  
146.880 MHz (PL 107.2)

## ARRL Contests

December 18, 2011  
Rookie Roundup – CW

January 1, 2012  
Straight Key Night

January 8, 2012  
Kid's Day

January 7-8, 2012  
RTTY Roundup

<http://www.arrl.org/>

*It is the special purpose of this group to support the City of Evanston Office of Emergency Preparedness*

## Straight Key Night (SKN)

Every day is a good day to send CW, but January 1 is reserved for Straight Key Night. Enjoy CW as it has been sent and enjoyed since the earliest days of Amateur Radio. This 24-hour event is not a contest; rather it is a day dedicated to celebrating our CW heritage. Participants are encouraged to get on the air and simply make enjoyable, conversational CW QSOs. The use of straight keys or bugs to send CW is preferred, but not required. As it is not a contest, there are no points scored and all who participate are winners.

Straight Key Night is held every January 1 from 0000 UTC through 2359 UTC (from 6:00 PM CT on December 31 through 5:59 PM CT on January 1) and can be heard on all authorized Amateur frequencies, but activity has traditionally been centered on the HF bands.

Entries for SKN 2011 must be received by January 31, 2011 at [StraightKey@arrl.org](mailto:StraightKey@arrl.org) or by regular mail. Votes for 'Best Fist' and "Most Interesting QSO" will be tabulated and included in the results. For more information visit <http://www.arrl.org/straight-key-night>.

## Santa Clause is Coming....to a Transceiver Near You!

Introduce children to amateur radio this Christmas season and give them a chance to talk directly to Santa! On December 23 and 24 from 2:00 PM CT to 7:00 PM CT. Tune in to 14.300 MHz to find out where Santa will be.

## History Capsule: The Vacuum Tube

A vacuum tube (in North America) or thermionic valve (elsewhere, especially in Britain) is a device that relies on the thermionic emission of electrons from a hot filament or cathode. The electrons then travel through a vacuum toward the anode (commonly called the plate), which is held at a positive voltage relative to the cathode. These devices are used rectification, amplification, switching, or similar processing or creation of electrical signals. Additional electrodes can be interposed between the cathode and anode to alter the current, allowing the tube the ability to amplify and switch.

Although thermionic emission was originally reported in 1873 by Frederick Guthrie, it was Thomas Edison's 1884 investigation that spurred future research. The phenomenon thus becoming known as the "Edison Effect." While Edison patented what he found, he did not understand the underlying physics, nor did he have an inkling of the potential value of the discovery. It wasn't until the early 20th century that the rectifying property tubes were utilized, most notably by John Ambrose Fleming who used a diode tube to demodulate radio signals. Lee De Forest's 1906 "audion" was also developed as a radio detector, and soon led to the development of the triode tube, essentially the first electronic amplifier.

Vacuum tubes were critical to the development of electronic technology which drove the expansion and commercialization of radio communication and broadcasting, television, radar, sound reproduction, large telephone networks, analog and digital computers, and industrial process control. Although some of these applications had counterparts using earlier technologies, such as the spark gap transmitter or mechanical computers, it was the invention of the triode vacuum tube and its capability of electronic amplification that made these technologies widespread and practical.